What is claimed is:

1. A liquid coating material in the form of a water-in-oil dispersion which is curable with actinic radiation, is substantially or completely free from organic solvents and has a pH < 5, comprising

(A) at least one constituent selected from the group consisting of low molecular mass, oligomeric, and polymeric organic compounds which contain at least one group which can be activated with actinic radiation, and also air-drying and oxidatively drying alkyd resins,

(B) at least one acidic ester of polyphosphoric acid and at least one compound (b1) containing at least one hydroxyl group and at least one group which can be activated with actinic radiation,

(C) at least one acidic ester of monophosphoric acid and at least one compound (c1) containing at least one hydroxyl group and at least one group which can be activated with actinic radiation, and

(D) at least one acidic, corrosion-inhibiting pigment based on polyphosphoric acid.

2. The coating material as claimed in claim 1, containing, based on the solids, 1 to 10% by weight of organically bonded P_2O_5.

3. The coating material as claimed in claim 1 or 2, containing, based on the solids, 5 to 30% by weight of inorganically bonded P_2O_5.

4. The coating material as claimed in any of claims 1 to 3, wherein the proportion of pigment (D) to constituent (A) is 1:0.5 to 1:10.

5. The coating material as claimed in any of claims 1 to 4, having a solids content of 70 to 99% by weight.

6. The coating material as claimed in any of claims 1 to 5, wherein the pigment (D) is selected from the group consisting of acidic aluminum polyphosphates and zinc polyphosphates.

7. The coating material as claimed in any of claims 1 to 6, wherein the low molecular mass organic compound (A) is a reactive diluent.

8. The coating material as claimed in any of claims 1 to 7, wherein the oligomeric or polymeric compound (A) is an oligourethane or polyurethane.

9. The coating material as claimed in any of claims 1 to 8, wherein the air-drying and oxidatively drying alkyd resin (A) has an oil length of 20 to 60%, based on the alkyd resin (A), 45 to 65 eq.% of the olefinically unsaturated double bonds present in the unsaturated fatty acid residues being conjugated.

10. The coating material as claimed in any of claims 1 to 9, wherein the group which can be activated with actinic radiation contains at least one bond which can be activated with actinic radiation.

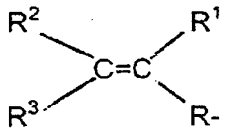
11. The coating material as claimed in claim 10, wherein the actinic radiation is electromagnetic radiation or corpuscular radiation.

12. The coating material as claimed in claim 11, wherein the electromagnetic radiation embraces near infrared (NIR), visible light, UV radiation, X-rays, and gamma radiation and the corpuscular radiation embraces electron beams, proton radiation, alpha radiation, beta radiation, and neutron radiation.

13. The coating material as claimed in any of claims 1 to 12, wherein the bond which can be activated with actinic radiation is a carbon-carbon double bond and/or triple bond.

14. The coating material as claimed in claim 13, wherein the bond which can be activated with actinic radiation is a carbon-carbon double bond.

15. The coating material as claimed in claim 14, wherein the bond which can be activated with actinic radiation is contained in groups of the general formula I:



(I),

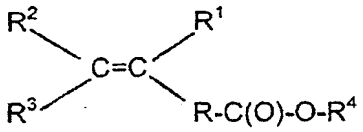
in which the variables have the following meanings:

R is a carbon-carbon single bond to the carbon atom of a carbonyloxy group or a divalent organic radical; and

R^1, R^2 and R^3 are each a hydrogen atom or an organic radical;

it being possible for at least two of the radicals R, R^1, R^2, and R^3 to be linked cyclically to one another.

16. The coating material as claimed in any of claims 1 to 15, wherein the compounds (b1) and (c1) are selected from the group consisting of carboxylic esters of the general formula II:



(II),

in which the variables R, R^1, R^2, and R^3 are as defined above and the variable R^4 stands for a hydroxyl-containing monovalent organic radical.

17. A polyester as set forth in claim 16, wherein the monovalent organic radical R^4 comprises or consists of at least one radical which is selected from the group consisting of hydroxyl-containing alkyl, cycloalkyl, and aryl radicals.

18. The coating material as claimed in any of claims 13 to 17, wherein the group which can be activated with actinic radiation is a (meth)acrylate group.

19. The coating material as claimed in any of claims 13 to 18, wherein the compounds (b1) and (c1) are selected from the group of the hydroxyalkyl (meth)acrylates.

20. The coating material as claimed in any of claims 1 to 20, comprising at least one additive (E).

21. The coating material as claimed in claim 20, wherein the additive (E) is selected from the group consisting of polyphosphoric acid, dryers, organic and inorganic, colored and achromatic, optical effect,

electrically conductive, magnetically shielding, and fluorescent pigments other than the pigments (D), transparent and opaque, organic and inorganic fillers, nanoparticles, oligomeric and polymeric binders other than the constituents (A), UV absorbers, light stabilizers, free-radical scavengers, photoinitiators, devolatilizers, slip additives, polymerization inhibitors, defoamers, emulsifiers and wetting agents other than the constituents (C), adhesion promoters, leveling agents, film formation auxiliaries, rheology control additives, and flame retardants.

22. A process for preparing a coating material as claimed in any of claims 1 to 21 by mixing its constituents and homogenizing the resulting mixture, which comprises

(1) mixing at least one pigment (D) with a portion of at least one ester (B), at least one ester (C), water, and a portion of the constituent or constituents (A) and grinding the resultant mixture in a milling apparatus to give a pigment dispersion (1),

(2) mixing a further portion of the constituent or constituents (A) and a further portion of at least one ester (C) with one another and homogenizing the resulting mixture to give the makeup mixture (2), and

(3) then mixing the pigment dispersion (1) and the makeup mixture (2) with one another and homogenizing the resulting mixture to give the coating material (3).

23. The process as claimed in claim 22, wherein the pigment dispersion (1) and the makeup mixture (2) are mixed with one another in a proportion of 3:1 to 0.33:1.

24. The process as claimed in claim 22 or 23, wherein, for preparing the pigment dispersion (1), use is made as constituents (A) of at least one alkyd resin and at least one low molecular mass organic compound.

25. The process as claimed in any of claims 22 to 24, wherein, for preparing the makeup mixture (2), use is made as constituents (A) of at least one alkyd resin, at least one low molecular mass organic compound, and at least one oligomeric or polymeric organic compound.

26. The process as claimed in any of claims 22 to 25, wherein the pigment dispersion (1) and the makeup mixture (2) are prepared using at least one additive (E).

27. The process as claimed in claim 26, wherein, for preparing the pigment dispersion (1), use is made as

additives (E) of at least one emulsifier which is different from the ester (C) or one non-(C) wetting agent and also at least one kind of nanoparticles.

28. The process as claimed in claim 26 or 27, wherein polyphosphoric acid, at least one photoinitiator, and at least one dryer are used as additives (E) for preparing the makeup mixture (2).

29. The use of the coating material as claimed in any of claims 1 to 21 or of the coating material prepared by means of the process as claimed in any of claims 22 to 28 to produce coil coatings.

30. The use as claimed in claim 29, wherein the coil coatings are firmly adhering corrosion-inhibiting primer coats.